equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions, as determined using the procedure specified in §63.1046(a) of this subpart.

(3) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the separator; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the separator on which the fixed roof is installed.

(4) The closed-vent system and control device shall be designed and operated in accordance with the requirements of §63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(c) Whenever a regulated-material is in the separator, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(1) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the separator.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a safety device, as defined in §63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in §63.1047(c) of this subpart.

§63.1045 [Reserved]

§63.1046 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the separator contains a material having an organic HAP concentration representative of the range of concentrations for the regulated-materials expected to be managed in the separator. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor

criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the regulated-material placed in the separator, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration of approximately, but less than, 10,000 ppmv.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60 appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(b) Procedure for performing floating roof seal gap measurements for the purpose of complying with this subpart.

(1) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually.

(2) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(3) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the separator and measure the circumferential distance of each such location.

(4) For a seal gap measured under paragraph (b)(2) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the separator wall to the seal and multiplying each such width by its respective circumferential distance.

(5) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the separator basin. These total gap areas for the primary seal and secondary seal then are compared to the respective standards for the seal type as specified in §63.1043(b)(2) of this subpart.

§63.1047 Inspection and monitoring requirements.

(a) Owners and operators that use a separator equipped with a fixed roof in accordance with the provisions of §63.1042 of this subpart shall meet the following requirements:

(1) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions to the atmosphere. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator shall perform the inspections following installation of the fixed roof and, thereafter, at least once every year.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the